



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/025,114 : Confirmation No.: 5686
Applicant : Goldstein, Joel E. et al.
Filed : December 19, 2001
For : POLYMERIC BINDERS HAVING SPECIFIC PEEL AND CURE
PROPERTIES AND USEFUL IN MAING CREPED WEBS

Art Unit : 1713
Examiner : Egwim, Kelechi Chidi

Docket No. : 06229 USA
Customer No. : 23543

Commissioner for Patents
P.O. Box 1450
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DECLARATION UNDER 37 CFR 1.132

Joel E. Goldstein and Ronald J. Pangrazi declare that:

1. They are inventors of the subject matter contained in the above-referenced application.
2. They have reviewed the office action dated July 21, 2003 and the references (US 4,322,516 and US 6,197,878 B1) cited therein.
3. They also reviewed the references in order to determine whether a peel value and a cure profile for the polymers disclosed in the examples could be measured using the procedures described in the above-referenced application.
3. In their opinion, a cure profile for the polymer emulsions in the examples of US 6,197,878 could not safely be conducted as described in the above-referenced application at paragraph 0020, pages 6-7, because the emulsions are not water emulsions; they are emulsions in ethylene glycol/water liquid and the ethylene glycol is greater than

50 % of the liquid. Since ethylene glycol flashes at 230 °F and the binder is cured at 320 °F, they believe the polymer emulsion would burst into flames during the cure profile procedure.

4. The polymer of Example 6 of US 4,322,516 (Wiest) was prepared and the peel value and cure profile were attempted according to the procedures at page 5, paragraph 0017 and at paragraph 0020, pages 6-7, of the above-referenced application. The polymer of Example 6 was chosen because it is the only example in which an alkylphenol ethoxylate free polymer was prepared.

5. The following data were collected:

| SAMPLE | ADD- ON % | % Solids | Viscosity cps | Peel Value | Peel Value (% control) | Dry CD Tensile g/5 cm | Wet CD Tensile g/5 cm | 30-sec wet tensile (% of ultimate) | Ratio Wet/Dry Tensile | COMMENT |
|---|-----------------|-------------|------------------|----------------|---------------------------------|-----------------------------|-----------------------------|--|-----------------------------|---|
| Invention Scale up of Run 1 Used as control | 17.2 | 52.3 | 366 | 285 | 100 | 4593 | 2785 | | 0.61 | |
| | | | | 275 | 100 | 4655 | 2888 | | 0.62 | |
| | | | | 290 | 100 | 4393 | 3015 | | 0.69 | |
| | | | | | | 4530 | 2755 | | 0.61 | |
| | | | | 283 (ave) | | 4774 | 2830 | | 0.59 | |
| | | | | 8 (std dev) | | 4407 | 2721 | | 0.62 | |
| | | | | | | 4829 | 2911 | | 0.60 | |
| | | | | | | 4680 | 2893 | | 0.62 | |
| | | | | | | 4945 | 2898 | | 0.59 | |
| | | | | | | 4723 | 2861 | | 0.61 | |
| | 17.4 | | | | | 3745* | 1747* | ~61 | 0.47 | |
| | | | | | | | | | | |
| Wiest Ex. 6 | 15.4 | 40 | 610 | 130 | 45.6 | 1684 | 335 | | 0.20 | Finished sample felt rubbery and stuck to the mylar while printing |
| | | | | 140 | 50.9 | 1625 | 295 | | 0.18 | |
| | | | | 135 | 46.6 | 1690 | 299 | | 0.18 | |
| | | | | | | 1668 | 305 | | 0.18 | |
| | | | | 135 (ave) | | 1610 | 304 | | 0.19 | |
| | | | | 5 (std dev) | | 1767 | 324 | | 0.18 | |
| | | | | | | 1779 | 344 | | 0.19 | |
| | | | | | | 1628 | 321 | | 0.20 | |
| | | | | | | 1653 | 350 | | 0.21 | |
| | | | | | | 1641 | 299 | | 0.18 | |
| | 15.8 | | | | | 1243 | 192* | ~60 | 0.15 | |
| | | | | | | | | | | |

* 30-second wet tensile

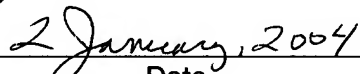
6. Although the polymer of Example 6, Wiest, appears to have a similar cure profile compared to the control, it did not cure because it does not have crosslinking functionality; it merely dried.


7. The data show that the polymer of Example 6, Wiest, would not inherently have the same or similar properties of the polymers of this invention, as shown by the distinct and huge differences in peel, dry tensile, and wet tensile.

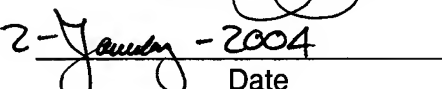
8. The data also show that the polymer of Example 6, Wiest, became rubbery after being subjected to the cure temperature. The polymer of this invention did not display the same characteristic.

9. That all statements made herein of their own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements are made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.


Joel E. Goldstein


Date


Ronald J. Pangrazi


Date